Figure 1

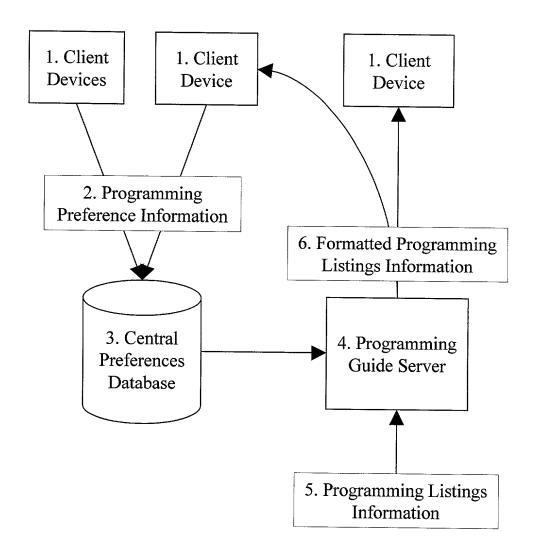


Figure 2

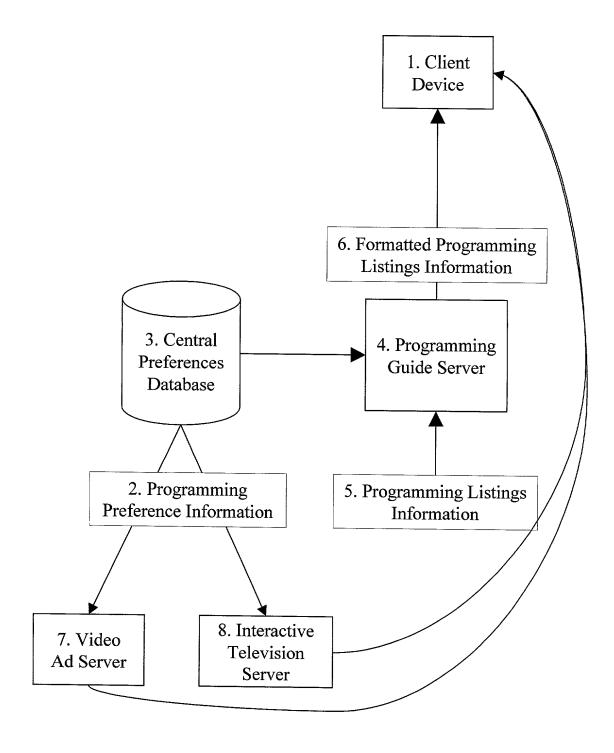


Figure 3

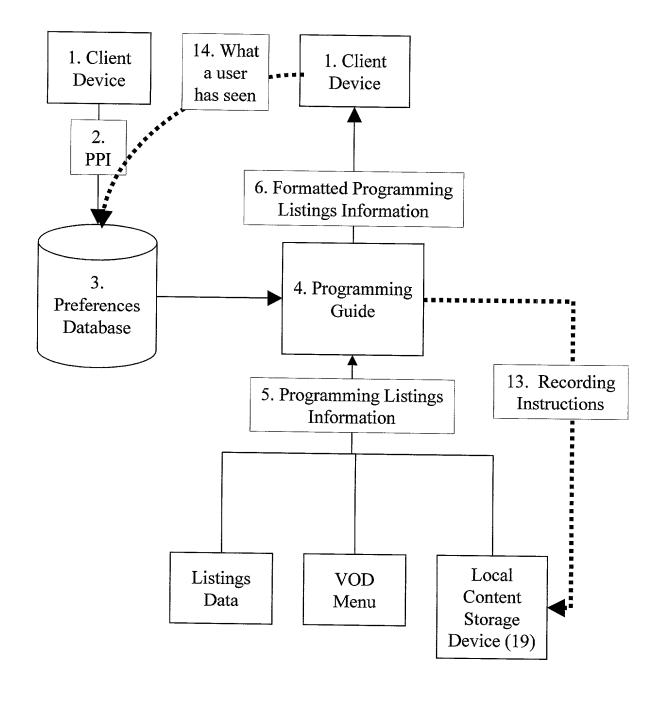


Figure 4

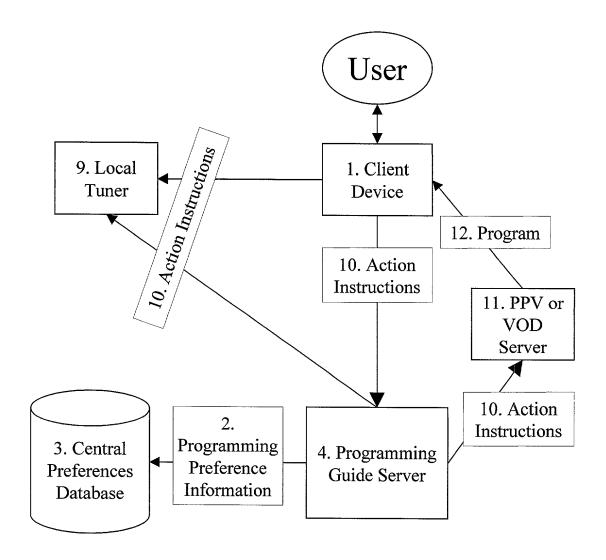


Figure 5

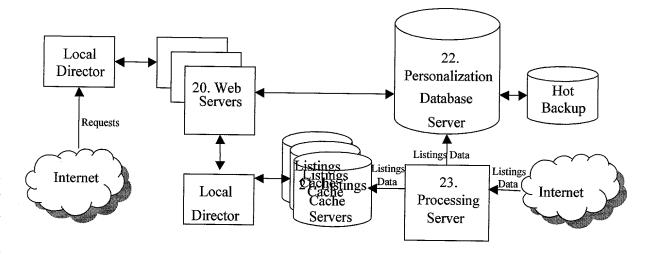


Figure 6

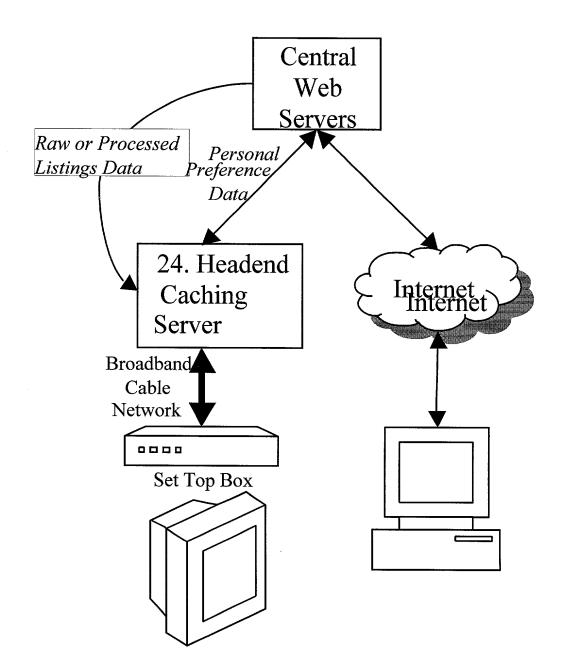
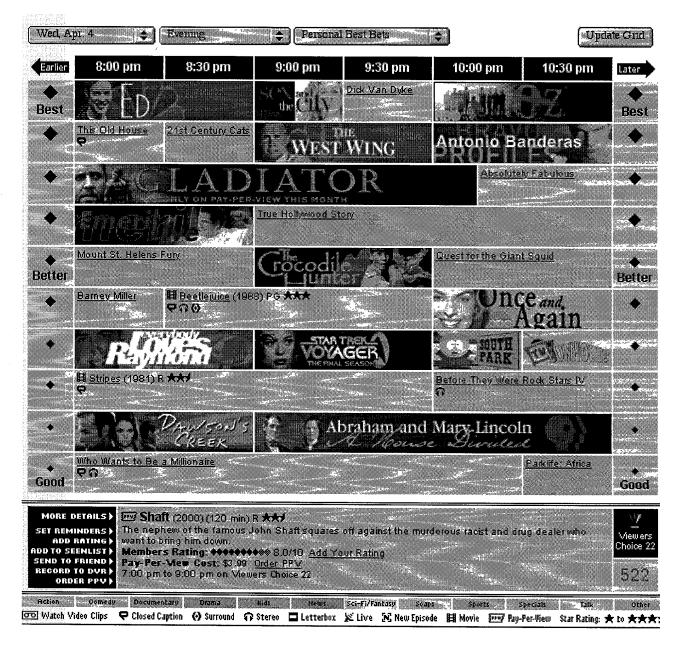


Figure 7

	7:30	8:00	8:30	9:00	9:30	
	Rugrats <u>Nick</u>	7 Days <u>UPN</u>		Drew Carey ABC	DAG <u>NBC</u>	
2	MASH <u>FX</u>	Michael Richards NBC Titus Fox		Angel <u>WB</u>		
3	Fresh Prince <u>TBS</u>	Buffy the Vampire Slayer <u>WB</u>		60 Minutes II <u>CBS</u>		
4	Jeopardy! <u>NBC</u>	Love Jones <u>UPN</u>				
-5-		My Date Presidents Daughter <u>Disney</u>		Gilligan's Isle <u>Nick</u>	Action <u>FX</u>	
6		Talk Soup <u>E!</u>		Blade Runner <u>USA</u>		



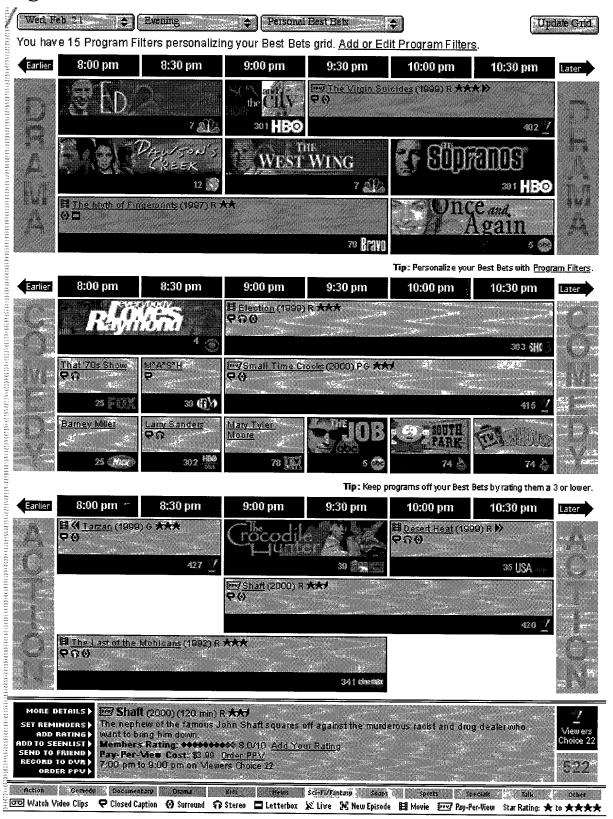
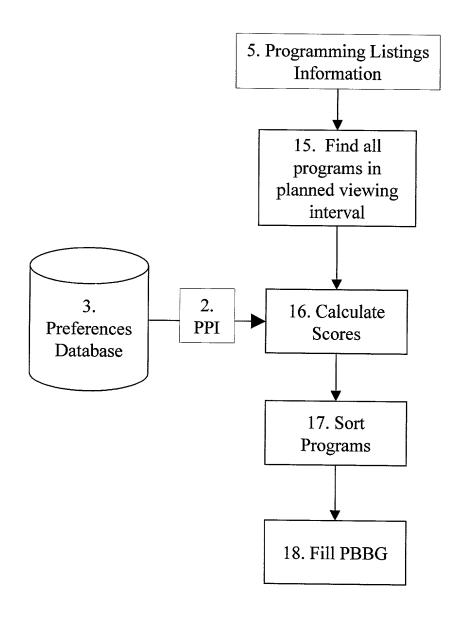


Figure 10



Produce a list P of programs available to the user in the given time period. This may be all programs on any channel in the user's lineup, just on personal channels the user has pre-selected, or some other subset.

1

Throw out programs that shouldn't be displayed on the UPG - e.g., "junk shows" such as previews, informercials, etc (alternatively, combine this into the initial list production).



Score all programs on P that have not been scored ever or since an appropriate elapsed time.

Separate P into P1, programs that MUST be displayed (this is specific to the algorithm and might include programs with explicit preferences such as reminders set by the user or "10" rated shows – see also reference to "bubble" algorithm below) and P2, everything else on P.



Retrieve programs from P1 in order by score (descending), start time (ascending) (and also by title or other tiebreakers).

Apply best-first grid placement algorithm to each program in P1 shows until appropriate # of personal lineups is filled up or list is exhausted (whichever comes first). Note that if there are an extraordinarily large number of must-display shows (relative to how many channels are on the PBBG) this might result in some must-display shows not making the cut.



Retrieve programs from P2 in the same order P1 was retrieved.

Apply best-first grid placement algorithm to each program in P2 until appropriate # of personal lineups is filled up or list is exhausted (whichever comes first).



Cache grid for re-presentation to user within an appropriate interval.

## Figure 12 A

	Preference Information						
	Explicit	Implicit					
Web	<ul><li>Searches, including saved Personal Searches</li><li>Show ratings</li></ul>	<ul> <li>Reminder, recording, and PPV ordering requests</li> <li>Grid viewing and show information requests</li> </ul>					
Set- Top Box		Show viewing and channel changing					

## Figure 12B

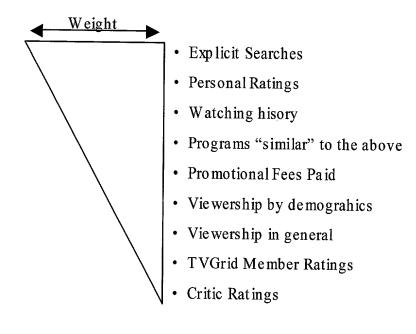
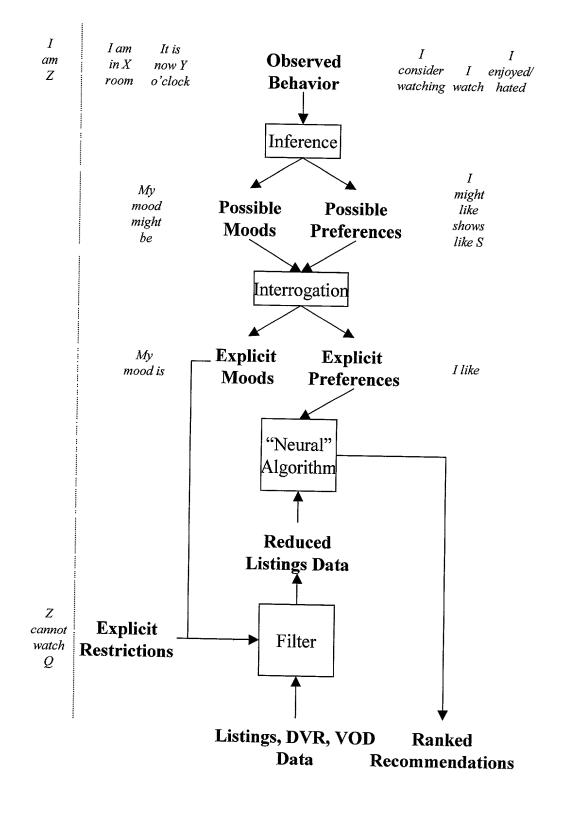


Figure 13



Influence Bucket	Include / Exclude	Influence
High		Rate on web/set top box
High		Seen list and rating relationships (series, other)
High		Show criteria: new
High	I	1-off reminder
High	I	Buy PPV
Medium		Episode -> series and other relationships
Medium	Е	Add to seenlist unrated
Medium	I	Record
Medium	I?	program matches personal search result
Low		3 <sup>rd</sup> party aggregate ratings
Low		Aggregate rating
Low		Partner-supplied ratings
Low (dep. on \$)	I?	Fees paid to the System for higher rankings